APPENDIX B
Random Numbers Table and Instructions

Random Numbers Table and Instructions

NOTE: Several computer applications, such as Excel, Access, SAS, and CSPro, can generate random numbers. If you are familiar with these programs, you can generate numbers electronically rather than using the random numbers table (Table B.1).

Instructions for using the random numbers table:

1. Determine how many digits you need your random number to be, based on the total number of households.
2. Choose a direction (right, left, up or down) in which you will read the numbers from the table. You will read the numbers in this direction for all random numbers selected for the sample.
3. With your eyes closed, use a pointed object, such as a pen or pencil, to touch the random numbers table. Your starting point is the digit closest to the point where you touched the table.
4. In the direction you chose, read the number of digits required. Numbers that are not within the range needed are discarded. Continue reading the numbers in the chosen direction until all random numbers have been selected.

Examples for random sampling:

For each area to be sampled, you must determine how many households there are and how many need to be selected for your sample. Using the example Table 3.1 in the random sampling instructions, you determined that you need to select 75 households from a total of 228 households in Zone 1. So you will need to select 75 numbers between the numbers of 1 and 228 following the steps below. In this example, you are choosing a number between 1 and 228, so you need 3-digit numbers.

Example 1:

You have decided that you will move to the right of where your pencil lands and you need 3-digit numbers between 1 and 228. Your pencil lands on the last digit in the cell in Column C, Row 2. Your pencil should be on the digit "0." Reading to the right to get a 3-digit number gives you the number "084." This means that you will ask household #84 on your list of numbered households to participate in the survey. Reading to the right to get the next 3-digit number gives you the number "443." Since this number is not between 1 and 228, you continue to the next number until it is in the correct range. The next number that fits the range is "015." Repeat this process until all 75 random numbers have been selected.

Example 2:

You have decided that you will move down from where your pencil lands and you need 3-digit numbers between 1 and 228. Your pencil lands on the second digit in the cell in Column H, Row 16. Your pencil should be on the digit "1." Reading down to get a 3-digit number gives you the number "123." This means that you will ask household #123 on your list of numbered households to participate in the survey. You will repeat this process until all 75 random numbers have been selected.

Example 3:

You have decided to move to the left of where your pencil lands and you need 3-digit numbers between 1 and 228. Your pencil lands on the first digit in Column D, Row 27. Your pencil should be on the digit "8." Reading left to get a 3-digit number gives you the number "879." Because 879 is not between 1 and 228, you must choose a new starting point. You try again and your pencil lands on the fourth digit in Column J, Row 11. Your pencil should be on the digit "1." Reading to the left to get a 3-digit number gives you the number "117." You will repeat this process until all 75 random numbers have been selected.

Examples for cluster sampling:

You will need to use the random numbers table for two tasks in cluster sampling. The first task is to choose a starting point between 1 and your sampling interval to select the clusters (refer to Step 3: Selecting the clusters to be sampled).

Example 4:

In our example, we need a number between 1 and 39 (our sampling interval). You have decided that you will move to the right of where your pencil lands and you need a 2-digit number between 1 and 39. Your pencil lands on the last digit in the cell in Column C, Row 45. Your pencil should be on the digit "2." Reading to the right to get a 2-digit number gives you the number "29." Refer back to the sample list of clusters in Table 3.2. The number "29" falls between 28 and 60, so you would start your selection of clusters with cluster #2.

For the second task, you need to randomly select households from each selected cluster. For each selected cluster, you need to choose 25 households. Let's say that you have chosen cluster #15 which has 40 households (Table 3.2). You will need to choose 25 numbers between 1 and 40. In this example, you are choosing a number between 1 and 40, so you need a 2-digit number. The numbers can range from 1–40.

Example 5:

You have decided that you will move to the right of where your pencil lands and you need 2-digit numbers between 1 and 40. Your pencil lands on the last digit in the cell in Column E, Row 10. Your pencil should be on the digit "2." Reading to the right to get a 2-digit number gives you the number "22." This means that you will ask household #22 on your list of numbered households to participate in the survey. You will repeat this process until all 25 random numbers have been selected.

Example 6:

You have decided that you will move up from where your pencil lands and you need 2-digit numbers between 1 and 40. Your pencil lands on the second digit in the cell in Column F, Row 23. Your pencil should be on the digit "0." Reading up to get a 2-digit number gives you the number "03." This means that you will ask household #3 on your list of numbered households to participate in the survey. You will repeat this process until all 25 random numbers have been selected.

Example 7:

You have decided to move to the left of where your pencil lands and you need 2-digit numbers between 1 and 40. Your pencil lands on the first digit in Column I, Row 26. Your pencil should be on the digit "5." Reading left to get a 2-digit number gives you the number "53." Because 53 is not between 1 and 40, you must choose a new starting point. You try again and your pencil lands on the fourth digit in Column D, Row 8. Your pencil should be on the digit "3." Reading to the left to get a 2-digit number gives you the number "39." You will repeat this process until all 25 random numbers have been selected.

Table B.1: Random Numbers Table

	A	B	C	D	E	F	G	H	I	J
1	8450	6992	6563	0340	2649	6933	9446	6182	2601	7800
2	5952	1443	7100	8444	3904	0159	1849	2601	9763	9058
3	5711	6779	9388	9668	4167	1423	2744	4622	2179	8503
4	2681	8047	0494	7853	8411	5406	8127	9577	8530	2350
5	0739	3114	3997	3482	3226	2216	6874	0620	8521	2938
6	8985	2463	5054	3448	6357	0187	6342	4740	4064	5068
7	7644	9339	8375	4583	7715	6355	6827	2055	9328	3287
8	6277	6631	8797	3693	6370	1436	1599	6267	2758	0323
9	6355	7590	7628	9054	0022	4241	7499	3430	3644	6576
10	7828	0589	3075	1954	5972	2266	0055	1097	9706	9009
11	6026	4546	4119	1554	4895	3123	9849	2094	5062	6711
12	8416	1972	9345	1593	2943	2379	5062	4829	5952	8292
13	1433	8823	7706	5273	6160	2161	5510	8617	7894	0175
14	0622	4884	8113	4447	5735	6347	7280	2301	2330	0693
15	4104	7164	1184	3964	2119	6968	0469	3827	0845	8400
16	4272	4979	1471	0942	9573	4283	1557	0161	3957	2516
17	1225	4171	3433	8700	0042	5884	2508	3250	1520	6366
18	7442	6575	1927	7267	7182	3960	4341	0350	1126	5945
19	4911	9007	3048	0319	0916	3002	1466	4421	7246	7662
20	3143	7402	4486	0909	1858	7961	1211	6296	5545	4588
21	8055	9294	2578	0426	4322	6925	2487	5677	9491	4301
22	9240	5260	7134	8001	0140	3394	8437	4066	2855	0933
23	7923	8630	3654	2638	2868	1059	0903	3114	6351	8261
24	0020	5104	4344	3324	9214	6615	5926	7012	9052	9205
25	3312	5923	5469	9171	4877	5392	3394	5077	3750	5637
26	3466	4193	5330	4680	0456	5891	3175	5733	5678	0956
27	1677	1694	1697	8921	2520	2811	3597	1355	9605	3637
28	3846	6283	0969	0051	5857	1043	1671	2013	8955	7706
29	8084	2327	0550	7231	1087	4830	9742	5654	5458	8290
30	2715	2247	4504	1374	9236	7340	1773	0693	2749	1335
31	6537	5815	9312	1460	6593	7678	4312	7537	9360	7195
32	4263	8931	1642	6694	1925	2661	1274	7346	8234	3159
33	7468	4077	6691	3961	7640	2355	9938	8485	9398	8364
34	4884	3324	3690	7433	1245	0523	4483	5933	5634	0512
35	7222	7299	1346	8937	0933	1569	5562	3735	2982	5966
36	5040	0820	8606	4006	4743	6343	4873	1002	4757	1075
37	2980	4860	5694	1501	5791	9414	7246	1283	9766	7427
38	8660	5480	7436	9745	8869	3307	4916	6543	9830	6099
39	7627	4959	6417	3542	1877	0370	5464	9590	5184	7379
40	1890	7664	7144	3523	8465	0385	8174	4740	3654	5543
41	3175	2580	3919	7436	0796	1018	5565	1142	4577	0457
42	7616	9338	6304	0283	6502	9085	5443	1531	9724	4140
43	5223	4525	0895	9930	0050	2201	5270	6447	1850	2070
44	9384	9794	8418	0374	4119	2075	0067	4535	7769	4719
45	5862	9165	5302	9789	5771	9670	7523	9280	2604	0212
46	9450	9307	6597	7183	5243	8854	6735	2415	0364	3096